CLAIMS

We claim:

1. An apparatus for recording and reviewing actions performed
during development of software content created using a tool on a
computer system having a processor and memory, said apparatus
comprising:

   a user interface means for receiving user events, receiving user
requests for playback of actions and displaying recorded actions;

   a recorder module coupled to receive user events from said
user interface means, said recorder module determining which
events and sequences of events constitute actions and recording
those actions; and

   a playback module coupled to said user interface module for
receiving user request for playback of actions and for displaying
playback of actions and coupled to said recorder module for
accessing recorded actions, said playback module in response to such
a user request playing back recorded actions.

2. An apparatus as defined in claim 1 wherein said recorder
module comprises:

   recording initiating means for preparing said tool to record and
placing said tool in a recording mode;

   recording determining means for determining which events
and sequences of events constitute actions and for determining
which actions to record, said recording determining means being
initiated when said recorder module receives a user event from said
user interface means when said tool is in said recording mode; and

   recording means for recording coupled to said determining
means, said recording means, when said tool is in said recording
mode, recording those actions which are determined by said
recording determining means as actions to be recorded.

3. An apparatus as defined in claim 2 further comprising a
recording terminating means for placing said tool in a non-recording
mode.

4.   An apparatus as defined in claim 2 wherein said recording initiating means and said recording terminating means are initiated in response to user input thereby allowing a user to selectively
5   switch between recording mode and non-recording mode.

5.   An apparatus as defined in claim 1 wherein said playback module comprises:
     playback initiating means for initiating playback of actions,
10   said playback initiating means coupled to said user interface module and operating in response to user input received by said user interface module from said user interface module, said event indicating a request for playback of actions;
     playback initializing means for preparing said tool to playback
15   actions, said playback initializing means arranged so that it operates in response to said playback initiating means;
     playback determining means for determining if there are recorded actions to playback; and
     playback means for playing back recorded actions when there
20   are recorded actions to playback.

6.   An apparatus as defined in claim 5 wherein said playback module further comprises sorting means for chronologically sorting said recorded actions said sorting means being arranged so that the
25   recorded actions are sorted prior to any operation of said determining means.

7.   An apparatus as defined in claim 5 wherein said playback module further comprises playback selecting means for selecting
30   which of said recorded actions to playback, said playback selecting means coupled to said user interface module for receiving user-specified criteria, said playback selecting means selecting those recorded actions which meet said user-specified criteria, said playback selection means further coupled to said playback means
35   such that said playback means plays back actions selected by said playback selecting means.

8.   An apparatus as defined in claim 5 wherein said playback
module further comprises playback selecting means for selecting
which of said recorded actions to playback, said playback selecting

5   means selecting those recorded actions which meet a fixed criteria,
said playback selection means further coupled to said playback
means such that said playback means plays back actions selected by
said playback selecting means.

10   9.   An apparatus as defined in claim 5 wherein said playback
module further comprises redundancy removal means for identifying
successive redundant actions and summarizing them into a single
action, said redundancy removal means being coupled between said
playback selecting means and said playback means such that said

15   redundancy removal means summarizes redundancies in the actions
selected by said playback selecting means and said playback means
plays back the summarized single actions and unsummarized actions.

10.   An apparatus for recording and reviewing actions performed

20   during development of software content created using a tool on a
computer system having a processor and memory, the tool having a
record mode and a non-record mode, as well as a playback mode and
a non-playback mode, said apparatus comprising:
        a user interface module for receiving user events and

25   displaying recorded actions;
        a recorder module coupled to receive user events from said
user interface module, said recorder module, when said tool is in
recorder mode, determining which events and sequences of events
constitute actions and recording those actions; and

30   a playback module coupled to said user interface module for
displaying playback of actions and coupled to said recorder module
for accessing recorded actions, said playback module, when said tool
is in playback mode, playing back recorded actions.

35   11.   An apparatus as defined in claim 10 further wherein the user
interface module includes a selection means for selectively switching

between record mode and non-record mode, said selection means being user-driven.

12. An apparatus as defined in claim 10 further wherein the user
5   interface module includes a selection means for selectively switching between playback mode and non-playback mode, said selection means being user-driven.

13. An apparatus as defined in claim 12 wherein said user
10   interface module further includes specification means for specifying which recorded actions to playback, said playback module further coupled to said user interface module for receiving specifications from the specification means, said playback module playing back the specified recorded actions.

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14. An apparatus as defined in claim 12 wherein said specification means allows users to specify criteria and said playback module determines which recorded actions satisfy the criteria and then plays back those recorded actions that satisfy the criteria.

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15. An authoring tool for use on a computer system having a processor, memory and output device, said authoring tool designed for creating multimedia products, said authoring tool comprising a creation replay mechanism for recording actions performed during
25   the development of a multimedia product and for subsequently replaying those recording actions on the output device.

16. An apparatus for recording and reviewing actions performed during development of software content, said apparatus comprising:
30   a processor;
       a memory coupled to said processor so that said processor can access contents of said memory;
       an output device coupled to said processor so that said processor can specify data to be displayed on said output device;

a user interface module for receiving user events, receiving user requests for playback of actions and displaying recorded actions;

5 a recorder module coupled to receive user events from said user interface module, said recorder module determining which events and sequences of events constitute actions and recording those actions; and

a playback module coupled to said user interface module for receiving user request for playback of actions and for displaying

10 playback of actions and coupled to said recorder module for accessing recorded actions, said playback module in response to such a user request playing back recorded actions.

17. A method for recording actions performed during development

15 of software content created using a tool on a computer system having a processor and memory, the tool having a recording mode and a non-recording mode, said method comprising the steps of:

entering recording mode;

receiving user event;

20 determining whether there is an action to record, said determining occurring in response to the receipt of a user event;

recording the action if it is determined that there is an action to record, the action being recorded so as to preserve the action's chronological order relative to other recorded actions;

25 determining whether user event indicates a switch to non-recording mode; and

switching to non-recording mode if it is determined that such a switch is indicated.

30 18. A method for playing back actions recorded during development of software content created using a tool on a computer system having a processor, memory and output device, the tool having a user-selectable playback initiating mechanism for initiating the playback and a playback selecting mechanism for specifying

35 criteria regarding actions to be played back, said method comprising the steps of:

displaying a starting state of the software content;

determining which recorded actions satisfy the specified criteria; and

playing back those determined recorded actions in

5   chronological order on said output device.